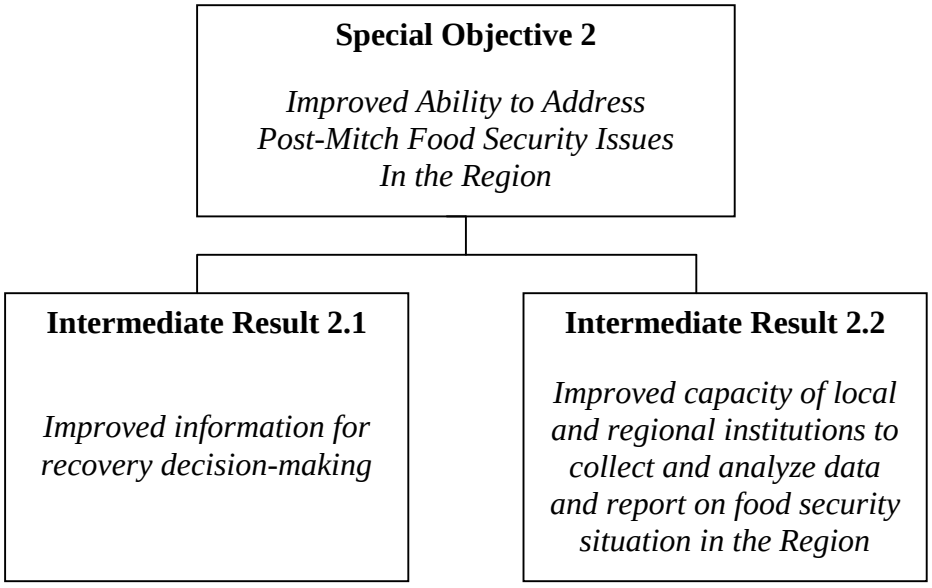
USDA Hurricane Mitch Recovery Program
Special Objective (SpO) 2

"Improved Ability to Address Post-Mitch Food Security Issues in the Region"

SECTION I – EXECUTIVE SUMMARY

A. Program Objectives and Summary

The United States Department of Agriculture provided enhanced information and analytical tools to key food security officials in Central America during the Hurricane Mitch Recovery Program. Activities carried out under this program were developed in response to the situation assessment and problem analysis conducted at the onset of the USDA Hurricane Mitch Recovery Program. The SpO2 response consisted of two Intermediate Results as reflected in the following framework:



IR 2.1 – Improved Information for Recovery Decision Making
The indicators for IR 2.1 are:

- Timely and accurate estimates of agricultural production for Nicaragua, Honduras, El Salvador and Guatemala throughout the crop production cycle.

- Timely and accurate food security monitoring report produced for Nicaragua, Honduras, El Salvador and Guatemala and disseminated to national and regional decision-makers, producer groups and relevant non-governmental organizations.

IR 2.2 – Improved Capacity of Local and Regional Institutions to collect and analyze data and to report on Food Security in the Region

The indicators for IR 2.2 are:

- Improved data collection and reporting techniques in place in at least one country in the region leading to statistically valid estimates of agricultural production for major commodities as well as accurate and timely assessments for the food security situation.

- Improved capacity to organize information and conduct analysis on production of food security in place in at least two countries leading to the timely dissemination of information to national decision-makers.

Three USDA organizations contributed collectively to the achievement of Special Objective (SpO) 2. They are:

- The National Agricultural Statistics Service (NASS)
- The Production Estimates and Crop Assessment Division (PECAD) of the Foreign Agricultural Service (FAS)
- The Economic Research Service (ERS)

The three agencies worked independently but cooperatively to achieve the desired results. The activities implemented by each of the three agencies were distinct depending on the specific technical expertise required and the technology, processes and methodologies used. In the relatively short implementation period of the program, the products created and the services rendered by the Department of Agriculture achieved the Intermediate Results and the Strategic Objective.

The purpose of SpO2 was to provide enhanced information and analytical tools to key food security officials during the Hurricane Mitch Recover program. This activity supported decision makers in both the United States and Central America to produce and disseminate better information in relation to food security after the recovery period ends.

When agricultural policy makers consider decisions which will have potentially long term effects on a country's food security situation, it is essential to support their decision making with sound statistical data and analytical tools. Effective decisions need to be based upon reliable information. Reliable information should be statistically defendable, timely and readily accessible to all persons who need the information.

Timely and reliable information is particularly important during times of crisis or disaster. The damages inflicted by Hurricane Mitch in Central America exemplified the need for a country to have a quick and reliable means of collecting information to analyze not only the urgent basic survival needs but also the longer-range implications of the

disaster on agriculture and food security. Information collected only by subjective means during crisis situations tends to over-state the problem. This type of information is crucial but has to be weighted by some objective means of assessment. Honduras and Nicaragua, the principal countries effected by Hurricane Mitch, were the major beneficiaries of the SpO2 Food Security Objective.

The National Agriculture Statistics Service (NASS) provided on-going technical assistance over the two year program in Nicaragua to improve agricultural statistics collection and to train counterparts in the Ministry of Agriculture and Forestry (MAG-FOR), Office of Agriculture Statistics to continue to improve data collection and dissemination. In Honduras, NASS was instrumental in restarting the Agricultural Statistics program by assisting the National Statistical Institute (INE) in the implementation of the Basic Grains survey for the 2001 *primera* (or "first") crop season.

The Production Estimates and Crop Assessment Division (PECAD) of the Foreign Agriculture Service provided monthly estimates of agricultural production in Honduras and Nicaragua. It also supported the technology transfer of Geographic Positioning System (GPS) in Honduras and produced a website that enhanced the dissemination of food security related information under the SpO2 program.

The Economic Research Service (ERS) used the PECAD crop estimates and other specific data on market conditions, trade, and country economic/financial performance to produce assessment reports of food security and to further develop the analytical assessment model for food security.

B. Funding Resources for SpO2 Activities

(Note: Funding was not disaggregated by IR)

NASS $327,563

PECAD $326,348

ERS: $247,119

Total: $901,030

Additional USDA resources

All activities conducted by USDA under the SpO2 initiative were reimbursable under the Interagency Agreement with USAID. However, the following activities produced or conducted under the SpO2 program will be continued by funding period by the respective agency:

- The automated weather section of the PECAD website will be continuously updated and permanently posted to the PECAD web site. This product is available to assist in regional crop assessments or weather monitoring to anyone with Internet access.

- The Economic Research Service produces an annual Food Security Assessment report in which a detailed food security analysis for 67 countries is undertaken using the ERS Food Security Assessment Model. Program collaborators in Central America have access to the annual report via the ERS website and can communicate with the ERS staff economists who prepare the report regarding their analysis via email.

C. Key Accomplishments/Practical Impacts/Considerations

NASS--Accomplishments/Practical Impacts

- Improved processes and methodologies for statistical sampling, data collection and gathering techniques, estimation analysis and timely dissemination of reports (Nicaragua, IRs 2.1 & 2.2).

- Provided technical assistance in sampling, data collection, analysis and reporting to the Honduras 2001 Basic Grains survey. The National Statistical Institute (INE) conducted the Basic Grains survey and released the survey results on time with an acceptable degree of understanding and analysis of the data on the part of INE staff (Honduras, IRs 2.1 & 2.2).

NASS--Additional Measures to Protect Investments/Recurring Costs

Continued training and technical assistance to Agricultural Statistics units in Honduras and Nicaragua will encourage further improvements in processes and methodologies for statistical sampling, data collection and gathering techniques, estimation analysis and timely dissemination of reports.

<u>NASS Technical Assistance to Nicaragua</u>

Objective yield forecasting, which has particular application for monitoring expected yields of the key basic grains (corn, rice and beans), can be very complementary to compare data quality and reliability. Costs involved in conducting objective yield surveys at the national level will involve considerable additional MAG-FOR operational expense. If donor support becomes available, USDA/FAS recommends the full implementation of an objective yield survey at the regional and or national level.

In order to implement the objective yield survey at the national level in Nicaragua, a three-year period of NASS technical assistance is projected as follows:

Year 1:	20 person-weeks staff time (salaries, benefits, overhead, travel & per diem)	$111,420
Year 2:	16 person-weeks	$ 89,136
Year 3:	16 person-weeks	$ 89,136
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Total:	52 person-weeks/3 years technical assistance--	$289,692

NASS Technical Assistance to Honduras

Cost estimates for a three-year program of NASS technical assistance to Honduras (including salary, travel costs and overhead plus material and equipment):

- 34 weeks of technical assistance per year
- 3 one-week study tours for 5 INE staff in Washington, D.C.

Total estimated cost for NASS assistance to Honduras-- $650,000.

NASS--Other Activities to Consider to Mitigate Future Disasters

Improvement of regional agricultural statistical capabilities would involve standardization of country based information collection and joint training and technical assistance. During the August 2001 USDA/ERS presentation to the Central American Council of Agricultural Ministers (CAC) in San Salvador, the ministers agreed that there is a need to better coordinate and share agricultural statistical information between the countries of the region. Currently, each country handles its own agricultural statistical data activities. These vary greatly in the types of surveys undertaken and the frequency and quality of data produced and disseminated. Resources dedicated to agricultural statistical data collection are limited and some countries can only provide market price information, while others conduct field based surveys and forecast production figures for basic commodities.

Since the countries in this region produce many similar crops and enjoy a growing trade in these commodities, they would benefit considerably from a standardized statistical platform in which each country reports key agricultural information in a similar format using a standardized methodology. Key users/beneficiaries of this standardization would be the buyers, sellers and other decision makers throughout the region.

Strengthened regional agricultural statistical capacity will contribute to better market functionality by providing accurate and timely information for decision makers. USDA, through the technical assistance efforts of NASS and other agencies, is interested in contributing to improved market information by helping to establish common statistical processes in the region as a whole.

PECAD--Accomplishments/Practical Impacts:

- Provided consistent and timely crop assessment reports, production estimates and forecasts (Nicaragua & Honduras, IR 2.1).

- Conducted drought assessment survey in Honduras in conjunction with local counterpart and provided objective verification and updated production estimates of the impact on basic grains production 2001. (Honduras, IRs 2.1 & 2.2)

- Provided training in the use of GPS technology to faculty and students of the Honduran National Agricultural School (ENA) in Catacamas, Honduras. Technical assistance also included the transfer of a satellite imagery field atlas and three GPS receivers and related peripherals to ENA (IRs 2.1 & 2.2).

- Produced a website that provides an updated source of SpO2 and Mitch recovery activity information, including automated weather information, to clients and interested users in the region and the world. The Internet site is automatically updated every 10 days with 210 charts of important sub-regions and 8 regional maps, and provides information on:

  - actual precipitation and cumulative precipitation
  - average minimum and maximum temperatures
  - surface and subsurface soil moisture

  The Internet site allows for quick information delivery to decision makers, including USAID, Ministries of Agriculture, and others (IR 2.1).

  (Website:
  http://www.fas.usda.gov/pecad/highlights/Mitch/economic_research_service.htm)

PECAD--Additional Measures to Protect Investments/Recurring Costs

Enhancement of Geographic Information System (GIS) capabilities in Honduras and Nicaragua will contribute to better data collection and analysis capabilities which, in turn, will improve agricultural production assessments and overall decision making.

<u>Per Country Cost implications for GIS enhancement:</u>

- Purchase of GPS units @ $160 per unit
- Purchase of desktop or laptop computers @ $1200 per unit for downloading and uploading and processing data
- Internet connection @ $60 per month
- GIS software costs @ $1,200

PECAD--Other Activities to Consider to Mitigate Future Disasters

A sustained political interest to address food security issues in Central America is needed in order to improve analytical and reporting efforts for decision makers. In spite of the sheer numbers of food-insecure people in the region, food security is a sensitive political issue. Only during crisis situations does it garner the interest of political leaders in the region. When the crisis subsides, so does the interest in addressing food security.

A concerted approach toward poverty reduction should also address the issues of food security. In their agreements with host governments, Food Aid donors should include efforts targeted at improving the analytical capacity of recipient countries, specifically their capacity to quantify and qualify their food-insecure populations. Recipient countries such as those in Central America need to improve their technical capabilities to provide reliable analytical information to their own decision makers as well as to donors.

ERS--Accomplishments/Practical Impacts

- Monitored and analyzed the regional food security situations in the four effected countries (IR 2.1).

- Produced five Food Security Assessment Reports during the recovery program, disseminated to policy makers via the PECAD Hurricane Mitch website (IR 2.1).

The Central American region as a whole and Honduras and Nicaragua in particular has benefited from USDA SpO2 assistance. Honduras and Nicaragua have strengthened their ability to collect, process, analyze and disseminate agricultural statistical information. ENA, the Honduran beneficiary of PECAD training and technical assistance in GPS, demonstrated improved capacity to conduct objective drought assessment in 2001. Using the ERS Food Security assessment model as a tool, an updated analysis on the food security situation in the four targeted Central American countries is available to data users via the PECAD web site.

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SECTION III
RECOMMENDATIONS FOR REDESIGNING SpO2 FOOD SECURITY PROGRAM ACTIVITIES

A. National Agricultural Statistics Service (NASS) Technical Assistance

Initially, NASS technical assistance was planned for Nicaragua only. The entire first year of project activity involved support to the MAG-FOR Agricultural Statistics Unit. With the creation of the National Statistics Institute (INE) in Honduras, and a request from the Director of INE for NASS assistance in the implementation of the 2001 Basic Grains survey, NASS had the opportunity to provide 8 months of intensive technical assistance to INE in Honduras. USDA/NASS was able to respond to INE's needs as a new institution and to support it in a critical survey conducted in the midst of a drought. This put significant pressure on the staff and the institution as a whole to produce reliable results, a task that was achieved. INE could have benefited from a comprehensive NASS technical assistance program but given the constraints under which INE was functioning, the NASS assistance provided was appropriate and met its intended objective.

B. Production Estimates and Crop Assessment Division (PECAD) Technical Assistance

The PECAD component of the project was primarily U.S. based. All assessments, analyses and web site development were conducted at PECAD headquarters in support of IR 2.1, "Improved information for recovery decision making." Although PECAD fulfilled its role to provide information to decision makers, the remote sensing and analysis work was not transferred to Central American counterparts. The Global Positioning System (GPS) training with ENA was a practical activity with applications to many other geographic based applications and should be promoted. More in-country linkages with regional organizations involved in agricultural/natural resource assessment should be emphasized in future support activities.

Institutional counterpart constraints were limited because most of the work conducted did not involve in-country institutional counterparts. The Planning and Evaluation Unit of the Honduras SAG was supportive to PECAD during in-country visits but it is essentially an administrative unit and not oriented to technical service issues.

A clear interest to develop PECAD type analysis and assessment capabilities exists at the regional level. Geographic Information System (GIS) and GPS technology transfer should be expanded in the region but must fit within existing institutional mandates of government or private organizations to ensure that the technology is successfully integrated into daily work. Some countries such as Nicaragua have functional GIS units but these often work in isolation and their products are not well disseminated. The need exists to improve information (statistics) related to crop production in order to improve food security decision making.

C. Economic Research Service (ERS) Technical Assistance

Institutional priorities were a constraint to the implementation of technical assistance related to the ERS Food Security Assessment Model. Its possible that another organization would have taken more interest in food security analysis. The organizations identified in Honduras and Nicaragua did not embrace the ERS model to such an extent that would lead to a clear increase in their institutional ability to conduct quantitative food security analysis for decision makers.

In a redesigned program, the in-country technical assistance component should be oriented toward identifying the most appropriate entity engaged in food security analysis. The USDA Hurricane Mitch Recovery Program opted to provide support on a government-to-government basis. In the case of Nicaragua and Honduras, the government offices dedicated to food security did not integrate the ERS model into their on-going food security work. Although it is difficult to know how a counterpart will respond to technical assistance, perhaps a more comprehensive search of NGOs would have resulted in the identification of organizations that could have responded better to the USDA/ERS technical assistance provided under this program.